

What is claimed is:

1. A method of deploying a fixed wireless access communications network such that a specified level of link performance is maintained, said network comprising a plurality of base stations and a plurality of subscriber stations, each subscriber station being arranged to communicate with one of the base stations via a communications link, said method comprising the steps of:-
- 5 (i) receiving a request to change the communications network;
- (ii) determining a level of link performance provided by each of the communications links taking into account the proposed change; and
- 10 (iii) effecting the proposed change if each of said determined levels of link performance are greater than the pre-specified level of link performance.
2. A method as claimed in claim 1 wherein said step (ii) of determining comprises calculating a predicted level of link performance on the basis of information about the locations of each base station, each subscriber station and information about the communications links between each subscriber station and its associated base station.
- 15 3. A method as claimed in claim 2 wherein said information about the communications links comprises information about a fixed frequency plan used to arrange the communications network.
- 20 4. A method as claimed in claim 1 wherein said step (ii) of determining comprises measuring the level of link performance.
5. A method as claimed in claim 1 wherein said step (iii) further comprises, if at least one of said determined levels of link performance is not greater than said specified level, then keeping said proposed subscriber station on hold.
- 25 6. A method as claimed in claim 1 wherein said change to the communications network comprises addition of a subscriber station and wherein said method further comprises the step of selecting a base station with which the additional subscriber station is to communicate.

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7. A method as claimed in claim 6 wherein each of the communications links is associated with one of a plurality of communications channels and wherein said step of selecting a base station further comprises selecting a channel for communication between the proposed subscriber station and the chosen base station.
8. A method as claimed in claim 7 wherein said channel is selected on the basis of information about the communications network and in an arbitrary manner.
9. A method as claimed in claim 7 wherein said channel is selected on the basis of a fixed frequency plan.
10. A method as claimed in claim 7 which further comprises, if at least one of said determined levels of link performance is not greater than said specified level, then repeating the method for the same chosen base station but a different selected channel.
11. A method as claimed in claim 1 wherein the specified link performance level may differ for different subscriber stations.
12. A method as claimed in claim 2 wherein said predicted link performance levels are determined on the basis of estimated link budgets.
13. A method as claimed in claim 2 wherein said predicted link performance levels are determined on the basis of an estimate of the carrier level divided by the sum of estimates of each of the interference level plus the adjacent channel interference level and the noise level.
14. A method as claimed in claim 5 which further comprises the step of calculating a ratio of the number of subscriber stations placed on hold to the total number of requests to add subscriber stations to the network.
15. A method as claimed in claim 1 wherein said fixed wireless access communications network is organised according to a fixed frequency plan.
16. A method as claimed in claim 1 wherein said fixed wireless access communications network is not organised according to a fixed frequency plan.

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- (i) an input arranged to receive a request to change the communications network;
- (ii) a processor arranged to determine a level of link performance provided by each of the communications links, taking into account the proposed change to the communications network; and wherein said processor is further arranged to allow the proposed change to be effected if each of said determined levels of link performance are greater than the pre-specified level of link performance.

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- (i) a request is received to change the communications network;
- (ii) a level of link performance provided by each of the communications links is determined, taking into account the proposed change; and
- (iii) said change is effected if each of said determined levels of link performance are greater than the pre-specified level of link performance.

19. A fixed wireless access communications network comprising:-

- (i) a plurality of base stations and a plurality of subscriber stations;
- (ii) a communications link between each subscriber station and one of the base stations; and wherein each of said communications links provides a specified level of link performance.

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20. A fixed wireless access communications network as claimed in claim 19 wherein the locations of the base stations are selected according to a fixed frequency plan, and the frequencies of said communications links are selected according to the fixed frequency plan.

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